

ANTARCTIC

1960

①



Island north of Lewis Is.
18/1/60

Rock is porphyroblastic gran
gneiss, like the rock on
Lewis Is. pink feldsp. p'blasts
(spec).

Consists of pink feldsp. p'blasts,
tabular, 1 inch long, $\frac{1}{4}$ - $\frac{1}{2}$ " wide,
average 25% of rock. (Photo)
In matrix of qtz, white
feldsp. (? plag) + biot.
well foliated.

At right angles to strike are
several peg. veins. one
3' wide, mostly pink on
pale fawn K feldsp, up to
3" across, a small biot
plagioclase + some qtz at edges
of vein sharp p. Also
several thin dirty white
feldsp veins, 2-3" wide,
straight, wing form with

23

4

47

10

3

Bearing (from ship's gyro) from
 Lewis to island 45° (approx)
 Another island bearing approx N
 from Lewis.

like those on Lewis Is.

Also several small
mag. of lg. light schist
(h'f's) (spec B)

Strike of rocks 290° (mag)
dip. 45° N (mag)

sun 152° (mag) at 0945
(2345Z). Some shear zones
part. to N.

All rock slabs are marked
by ill. widely fld, no
m. anal.

(mag)
Bearing to other islands
127, 181, 257 (all at $\frac{1}{2}$ mile
distance) 339 (2 miles).

True bearing of sun 61° . \therefore mag
decl. 91° W.
 \therefore strike N 200° true dip 45° W.

Water samples.

(1) Surface seawater, near west side of Dibble Glacier tongue. Numerous bergs to west, also. Collected from channel between two bergs, 100' apart, current setting to west through channel. Surface temperature 31°F , air temp. 33°F . Bright sunshine. Collected 1400 approx. 12/1/60

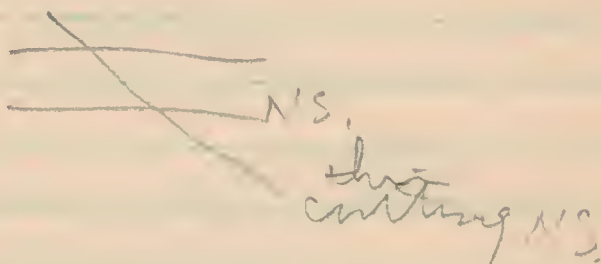
(2) Surface seawater, anchorage, Lewis Is., abt 1/4 mile north of Lewis Is. Thin high cloud. Collected 1800 approx, 12/1/60.

(3) Two bottles lake water northernmost lake on largest island of Davis Group. Surface completely frozen, 4" of ice at collecting point 6 ft from edge. 20/2/60.

Lake depths, L. Stinegar.
31/1/60.

Big N.C. Landing Dykes southish.

X1-S.



Kaiser Group.

31/1/60.

Western end, Lillies, Ss.

On north side of is. rocks
strike N 35° E (approx) dip 60-80° E.
St. line is very fine. On a large
scale, but in places are small
"dog" folds, mostly quite tight.

Rocks are of feldsp. gran gneiss
etc. feldsp. (light blue) gneiss, and
bands up to 20 ft wide of hybrid
gneiss.

Qty feldsp. but gm. is very rough,
with poorly defined foliation. Due to
slight cont. of biot. (spec A).
In places, rock is rich in biot.
& well banded, giving a hybrid
gneiss.

Normal rock cont. small patches
of coarse gr. qtz + feldsp. + Chert

33 cm of sim. material, only $\frac{1}{8}$ - $\frac{1}{4}$ "
wide, straight, uniform in width,
poorly defined edges, run
through the rock, both parallel to
banding + across it.

In a couple of places are irreg
masses, subal felt across
or veins a couple of ft wide
of pink porph. gran. These are
mg - g in center, but edges
grade into Q.F. host gneiss
(which here has little list)
with thin wavy fingers of
pinkish gran in the lower
gneiss. They give impression
of developing from the gneiss.
Some have pink feldspar phen.
6" across.

I venture south, rock is more hetero-
geneous. Gneiss here is coarser,
coarser giving impression of

invading green. Patches of
green occur, as do veins of
pink gran, some cutting
across folia of green. This
gran. bands from c-mg
of flaps rock to coarse
pegmatoidal rock & flaps
phen. + hot. plates. Some
gran is blue-green & pink
& white alternating. ^{Spec B} Veneers
about 6" - 2' wide.

Further S, veins of pink & wh.
(mixed in one vein) of quite
become common in places, &
gran. is more common. Some
bands are of flaps & gran
(Spec C). Gran. veins are
green. pale to folia. of green, 1-
3' wide, many are made of
of flaps, wh. flaps & some red
gran, & patches of pink flaps.
Edges of veins sharp veins

roughly uniform in width.
 Around these veins, garnet
 common, even in the best
 sections, some patches a few
 inches across almost pure
 red garnet.

[Photo of vein - white
 gran vein & pink felp
 patches]

vein & surrounding felp
 white of B zone white
 big of x to line gran
 & some pink felp.



vein is sim. colored to red of 1" wide
 along granite.

Plays of form. of granite
seem to be 3 or 4 grains
like spec. then dec. of
granite to al. size. of quartz
size, then white rather
friable gran & only one
granite, form. of pink feldsp,
form. of pink gran by
lines of feldsp. (last phase
rare).

A few veins + masses of white
feldsp. in ~~qtz~~ both along
across banding.

South of outcrop a pink granite
c. qtz in form of white masses
several inches across and
pink c-mg feldsp. has shps of
magnetite along edge.

Some areas of green (common)
(~~the~~ green aggregate mostly)
are stained by lime. Counts
slightly higher on this
compared with other rocks
(100 + 80 respect.)

Haver Group 31/1/60.

Max. Band 1 of Brown Gne.

Rock is f. mg of flaps in a
faint foln N 31° E, 70° S (mg)
Spec A.

ptn places are very narrow
fine of a cross of c-mg to c-g.
green, edges leather. wavy
against gress. All iron

stained and much of the
surface with a polish —

“dust wavy”
possibly a faint foln. limestone
putting wet.

Several Bands 2" to
cutting across foln of
flap blade rock (Spec B)
prob. orig. dykes. Edges
sharp, with rough
wavy but could
be straight to wavy.

In one place a strike
slip fault, horizontal motion
+ str. beyond dip, movement
vertical.

Junction bet. this rusty coloured
rock + mig. runs abt parallel to
ice-rock junction, and along
head of fiords.

In general, magism in the
Faneu Group is most intense in
the northern part.

From Brown Glacier north, strike is
abt north, dip vertical. Small tight
folds occur, but bend is straight, to
island 110, where it swings clockwise
to ENE, with some dips of 70° s. or
even $50-60^{\circ}$. South of island 70, it is
E-W, west, and north of this
it is very irregular. But islands
30 and 120 bend is abt north, dips west.

Water samples, Vostok Hills
1/2/60.

Aneroid sea level (shipside)
1333 at 0723.

Samples collected by
C. Braunsdorfer.

Spec. collected from north E.
side of Clear Lake.
North of north of this type.
Same dark enough to be
brown.

A

C

B

Handwritten notes and a small sketch in the bottom right corner, possibly indicating a direction or a specific point.

Harold Beaches, Davis.

31/1/60.

100' N of Ballroom hut is possible beach, 30' above present c.w.m. There is a sudden drop & shelving area with rather irreg. slope with a proportion of rounded pebbles, but also some flat thin angular ones and scattered large boulders all partly buried, up to 3-4 ft across.

Area above top of drop is rather firm, but many more flat platy angular pebbles and no rounding. Sketch p. 32
Photo looking north.

Trace of higher sea level continues to north, but difficult to follow upper limit. At head of creek

Bay 100' on possible east
doubtful limit at 30 ft.

On point N. of last light
measured, with rounded pebbles
up to 8" across, with a
scattering of larger less well
rounded boulders, goes up
to 10 ft A.S.C. (about 10 ft)
This is real shingle, with
no sand.

Rounded pebbles do go higher,
but are less rounded and
there is much sand among
them. Junction of sandy
shingle & finer shingle is
fairly sharp.

In bay around point, at
100' from shore is a flat area
about 30' long, then white beach
to sea. The peninsular beach
above flat area (about 10 ft
32), heavy like that at

first site, behind stepping is
a ridge abt 1' high, 5' wide,
of small lumpy sand. Just
above is a level, but has
low mounds & depressions
only a couple of feet
high, reminiscent of a wave.
From the level water goes
down to 6' above L.W.M.
where well rounded shingle
a couple of ins. across
goes down to - again
hardly beach. A "beam" of
shingle at top, 5' wide, and
1' high (? this is a fairly
small one.)

Top of area is 30' A.S.L.

N 4 W

N 1/2 E

N 1/2 W

N 1/2 E

Bedford Hills

1/24/60.

Allisford.

South from road, rocks are
garnetiferous gneiss, some of which
are green, and some bands of g.
felsic gneiss.

Rapid alternation of types, in
bands from 1 inch to 2-3 ft
thick.

Garnet gneiss very variable,
ranging from f-g to f-mg,
some only lavender and
pale pink garnet, but most
with minor felsic. Some
parts are mainly gneiss, others
over 50% garnet.

Spec. A

fg felsic gneiss (Spec B)
forms only thin bands.

Cutting across foliation, are
thin veins of felsic gneiss.

Banding generally straight & only
a few minor contortions.

~~Str N130 dip 11. (mag)~~

(str N070°T. dip 70 N.)

Some bands cont brown pyrox
x es (hypersthene). These are
atz feldsp hyp. aggregates mostly
eg. Feldsp. tends to be pale brown,
but rock not nearly dark
enough for claim. In these
rocks garn generally absent.
Some of these atz feldsp pyrox
rocks are variably colored,
e viz eg. streaks through
mg rock, and a few very
dense gr. feldspaty masses
a ft. or so across. Some
bands a good deal of bit.
Towards top of hill, garnets
are less common, and
rock is of above type.

Several shears, a ft wide.

dipping abt west, striking
parallel to main dyke set. One
shear at East has R.H. movement.
A good deal of shearing
around pr 15' dyke of the
main set.

Much of rock is stained
by lim. and cracked &
white encrustation. Some
is staining, both in
country & dol.

Specs of metadyke^(C) poodyke^(D)
(i high plates) (pdyke's straight
some wavy. narrow, only a ft or
so wide) green chert^(E) (white)
green shale. (F)

metadykes are thin bands a
few inches wide part to part.

Point one east side of ^{adjacent} big
dyke on point on S side of
lake

Point 2 north edge of big dyke
on west side of lake

Point 3 big rock but trap
beaches at N W corner of lake

Sounding, Deep Lake 2/2/60.

Answered on Beach at 1740

at 0805.

Answered Deep Lake

1627 at 0908

add 1 ft to all depths

(1)	(2)	(3)	Depth
	Answer		
248	004	035	4' 5" soft.
230	353	035	7' 5" firm
231	331	030	11' 4" firm
230	310	027	11' 0" firm
230	291	025	11' 0" "
232	283	016	10' 4" "
236	278	015	8' 3" rock
237	270	349	7' 5" rock
235	273	345	6' 5" "
233	268	342	5' 0" soft
25*	from rock bottom		15' "
242	281	357	7' 5" soft
261	272	305	11' 3" "
280	328	010	10' 9" "
291	315	341	7' "

point of
 1/2 way S end of southernmost
 beach. 1. muddy at end of
 beach + two small islands.

40 from shore 26

SECOND RUN

(1/10 XRS -)

(1)	(2)	(3)	<u>DEPTH</u>	
288°	332°	014°	90'	SOFT
282°	331°	002°	110'	MUD
286°	329°	027°	118'	"
284°	329°	038°	113'	"
223°	329°	011°	104'	"
209°	333°	053°	62'	V. SOFT
200°	337°	053°	40'	SOFT
196°	340°	059°	12'	MUD
192°			8'	SAND

ALL LAYERS LAYING DOWN. UP 1/2 S. OUT.

177.2
25.

Ancient shore of Deep Lake
1684 at 1250.

Water level 2-4".

Sample (1). North side of valley
running into SW corner of lake.
Just behind small beam
of shingle. This is top beam.
Another beam between it &
lake. 1 ft above lake of
sample 6'.

Sample (2) North side of
valley. Ancient 1713 at 1306.
On a terrace above main
valley.

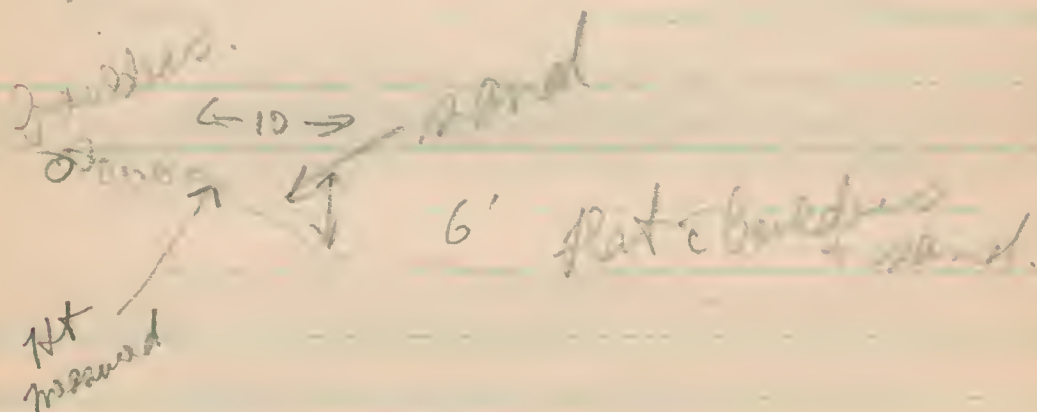
Green clay covered by 6" of
shell grit & sand.

Sample (3) Ancient 1773 at 1325.
Green clay - North side of
gully.

Sample 4. Opened 1812 at 1335.
near north side of head of
valley. C boulders around.
Green clay.

Sample 5. East side of col
exposed to R. stream from
head of valley, on old
sea level beach.
An. 1920 at 1350.

Though col is perfect example
of raised beach. An 1912 at
1400. Photo.



Levels around L. Stinson

1906 at 1420 (1) 2/2/60
Trench 15' wide (+20)

(2) 1912 at 1440
mouth of valley. alt of
line of benches (+22)

(3) 1922 at 1515.
line of benches at edge of
trench 30' wide. (+26)

(4) 1906 at 1530.
edge of trench 10' wide (+8)

(5) S.W. corner of L. Stinson
1852 at 1535. (-46)

(6) 1910 at 1545.
edge of trench 30' N.W. of
L. Stinson (N. of small lake)
Trench 20' wide

(7) N. side of L. Dinger (Below
permanent drift)
1871 at 1600

(8) 1930 at 1610.
Terrace at foot of hill N of
NW corner of L. Dinger. 15'
wide, grading to uniform
slope down to lake.

(9) 1934 at 1630.
plain E of camp.
Strong wind affecting
reading.

Top of a raised beach in north
bay is abt. 6ft below level of
plain (reading 9).

Along N side of L. Stm. near eastern
end, is a line of boulders abt 20'
below terrace.

$979\frac{1}{2}+$
 $979\frac{3}{4}$

Relative aneroid readings from
Davis barograph 2/2/60.

Time	Reading	Corr.	Cor.	A.S.L.
0205	1740	+14	1754	0
0908	1627	-10	1617	-137
1250	1684	-102	1582	-172
1306	1713	-106	1607	-147
1325	1773	-108	1665	-89
1335	1818	-112	1706	-48
1350	1920	-114	1806	+52
1400	1912	-116	1796	+44
1420	1906	-132	1774	+20
1440	1912	-136	1776	+22
1515	1922	-142	1780	+26
1530	1906	-144	1762	+8
1535	1852	-144	1708	-46
1545	1911	-146	1765	+11
1600	1871	-146	1725	-29
1610	1930	-146	1784	+30
1630	1934	-148	1786	+32

Add figure for correction algebraically.

Palaeomagnetic specs.

4/2/60

From dyke 50' north of
metre hut. Dyke 20' wide
member of NS set.

Specs from centre

Spec (1) seen at 1020.

Spec from centre of dyke

Jones Is. station.
ref 2/60.

Only one pole found at
angle of 80° to horizontal.
Height $16\frac{1}{2}$ ins.
In middle of curvase
2' wide. According to
J. Williams this was the
Southern Pole, and was
put into a previous
crack last year.

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ANT/MCL/04A

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